

# Center for Total Artificial Hearts & Biomedical Devices

Distinguished Center

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Established as a center in 1987. Currently developing the first electro-hydraulic artificial heart (an advanced version of the JARVIK-7) which utilizes a single energy converter and unified ventricles that will fit in humans. Other implant projects include the urinary bladder, urethra, ureter and a sphincter. The center's scope of research includes: conceptualization, prototype development, fabrication, bench and implant testing and assessment. Received "Distinguished Center" status in 1991.

Overview	Technologies	Status	Economic Impact
Current State Contract	*Engineering-miniature hydraulics, device design, design analysis, CNC machining capability, computer machining capability, device fabrication, polymers, plastics, metallics and QA/QC	*Have established shared leadership in electric artificial heart projects	*\$10 million backlog in research
Matching Funds Cumulative		*Have only system with motor backup capabilities	*Have formed joint venture company, Cardio West with Ariz. Med Ctr.
		*Considered world leader in artificial organ research	*Re-acquired pneumatic heart rights to reinstate testing.
Center Related Jobs	*Electrical design & fabrication		
Industry Jobs Created	*Integrated circuits & VLSI		
Benefiting Utah Companies	*Device testing		
Patents Applied	*Animal experimentation-surgery, radiology, hematology, immunology, biochemistry, pathology, device retrieval analysis	*Conducting animal studies for fully implantable electric artificial heart	
Patents Issued			
License Agreements			